WHAT IS CLAIMED IS:

1. A composition comprising: water; at least one hydrophilic polymer containing at least two groups which are independently the same or different a primary amine group or a secondary amine group and at least one saccharide containing a reducible function, the hydrophilic polymer and the saccharide being mixed to form a reaction mixture and reacted until to increase the viscosity of the reaction mixture, the reaction then being substantially terminated by reducing the pH of the composition.

2. The composition of claim 1 wherein the predetermined viscosity of the composition is at least 20 cp at 80°C when the reaction is substantially terminated.

3. The composition of claim 1 wherein the predetermined viscosity of the composition is in the range of approximately 20 cp to 100 cp at 80°C when the reaction is substantially terminated.

4. The composition of claim 1 wherein the predetermined viscosity of the composition is in the range of approximately 20 cp to 60 cp at 80°C when the reaction is substantially terminated.

5. The composition of claim 1 wherein the predetermined viscosity of the composition is in the range of approximately 20 cp to 40 cp at 80°C when the reaction is substantially terminated.

6. The composition of claim 2 wherein the predetermined viscosity of the composition at reduced pH is no greater than 80 cp at 23°C.

7. The composition of claim 1 wherein the pH of the composition is greater than 7 during reaction and reduced to less than 7 to substantially terminate the reaction.

8. The composition of claim 1 wherein the pH of the composition is greater in the range of approximately 10 to 12 during reaction and reduced to 6 or less to substantially terminate the reaction.

9. The composition of claim 8 wherein the pH of the composition is reduced to a pH in the range of approximately 4 to 6 to substantially terminate the reaction.

10. The composition of claim 8 wherein the pH of the composition is reduced to a pH in the range of approximately 5 to 6 to substantially terminate the reaction.

11. The composition of claim 1 wherein the reducing saccharide is a monosaccharide, a disaccharide or a polysaccharide.

12. The composition of claim 1 wherein the polymer is partially hydrolyzed poly(N-vinylformamide), partially hydrolyzed vinyl acetate/ N-vinylformamide copolymer, hydrolyzed acrylonitrile/ N-vinylformamide copolymer, amine functional polyacrylamide, acrylic acid/vinylamine copolymer, maleic anhydride/maleic acid copolymers with N-vinylformamide/vinylamine, N-vinylformamide /vinylamine polymers with vinyl sulfonate comonomer units, NVF/vinylamine copolymers with at least one cationic monomer, allylamine polymer, diallylamine polymer, allylamine/diallylamine copolymer, urea/formaldehyde condensation polymers, melamine/formaldehyde condensation polymers, amidoamine polymers, amine/epichlorohydrin polymers, poly(ethyleneimine), hydrolyzed poly(2-alkyl-2-oxazoline) or partially hydrolyzed poly(2-alkyl-2-oxazoline).

13. The composition of claim 1 wherein the polymer is a copolymer of vinyl amine and vinyl alcohol.

14. The composition of claim 1 wherein the saccharide is at least one of glucose, lactose, or 2-deoxy-D-ribose

15. The composition of claim 1 wherein the water, the hydrophilic polymer and the reducing saccharide are contacted at approximately a temperature of approximately 25°C or below and subsequently heated to induce a crosslinking reaction of the hydrophilic polymer and the reducing saccharide.

16. The composition of claim 15 wherein the pH of the composition is at least 10 during the reaction..

17. The composition of claim 12 wherein the polymer is an NVF/vinylamine copolymer with diallyldimethylammonium chloride or with a cationic acrylate comonomer.

18. A method of increasing the strength of a cellulosic pulp product comprising the steps of:

contacting wet cellulosic pulp with a composition comprising (i) at least one hydrophilic polymer containing at least two groups which are independently the same or different a primary amine group or a secondary amine group and at least one saccharide containing a reducible function, the hydrophilic polymer and the saccharide of the composition having been reacted in a crosslinking reaction prior to contacting the composition with the cellulosic pulp product to increase the viscosity the composition; and,

after contacting the cellulosic pulp with the composition, causing the crosslinking reaction between the hydrophilic polymer and the saccharide of the composition to proceed further.

19. The method of claim 18, wherein prior to contacting the wet cellulosic pulp with the composition, the hydrophilic polymer and the saccharide are mixed to form a reaction mixture and reacted to increase the viscosity of the reaction mixture, the reaction then being substantially terminated by reducing the pH of the composition.

20. The method of claim 18 wherein the predetermined viscosity of the composition is at least 20 cp at 80°C when the reaction is substantially terminated.

21. The method of claim 18 wherein the predetermined viscosity of the composition is in the range of approximately 20 cp to 100 cp at 80°C when the reaction is substantially terminated.

22. The method of claim 18 wherein the predetermined viscosity of the composition is in the range of approximately 20 cp to 60 cp at 80°C when the reaction is substantially terminated.

23. The method of claim 18 wherein the predetermined viscosity of the composition is in the range of approximately 20 cp to 40 cp at 80°C when the reaction is substantially terminated.

24. The method of claim 18 wherein the predetermined viscosity of the reduced pH composition is no greater than 80 cp at 23°C.

25. The method of claim 18 wherein the pH of the composition is greater than 7 during reaction and reduced to less than 7 to substantially terminate the reaction.

26. The method of claim 18 wherein the pH of the composition is greater in the range of approximately 10 to 12 during reaction and reduced to 6 or less to substantially terminate the reaction.

27. The method of claim 26 wherein the pH of the composition is reduced to a pH in the range of approximately 4 to 6 to substantially terminate the reaction.

28. The method of claim 26 wherein the pH of the composition is reduced to a pH in the range of approximately 5 to 6 to substantially terminate the reaction.

29. The method of claim 18 wherein the reducing saccharide is a monosaccharide, a disaccharide or a polysaccharide.

30. The method of claim 18 wherein the polymer is partially hydrolyzed poly(N-vinylformamide), partially hydrolyzed vinyl acetate/ N-vinylformamide copolymer, hydrolyzed acrylonitrile/ N-vinylformamide copolymer, amine functional polyacrylamide, acrylic acid/vinylamine copolymer, maleic anhydride/maleic acid copolymers with N-vinylformamide/vinylamine, N-vinylformamide /vinylamine polymers with vinyl sulfonate comonomer units, an NVF/vinylamine copolymer with at least one cationic monomer, diallylamine polymer, allylamine/diallylamine copolymer, urea/formaldehyde condensation polymers, melamine/formaldehyde condensation polymers, amidoamine polymers, amine/epichlorohydrin polymers, poly(ethyleneimine), hydrolyzed poly(2-alkyl-2-oxazoline) or partially hydrolyzed poly(2-alkyl-2-oxazoline).

31. The method of claim 18 wherein the polymer is a copolymer of vinyl amine and at least one other monomer.

32. The method of claim 18 wherein the cellulosic pulp is contacted with the composition in the presence of a base.

33. (Original) The method of claim 18 wherein the saccharide is at least one of glucose, lactose, or 2-deoxy-D-ribose.

34. The method of claim 18 wherein wet cellulosic pulp and the composition are contacted at room temperature or below and subsequently heated to induce crosslinking.

35. The method of claim 18 wherein the cellulosic pulp and the composition are heated to a temperature of at least 50°C.

36. The method of claim 18 wherein the cellulosic pulp and the composition are heated to a temperature of at least 70°C.

37. The method of claim 18 wherein the cellulosic pulp and the composition are heated to a temperature of at least 80°C.

38. The method of claim 28. further including the step of drying the wet cellulosic pulp.

39. The method of claim 30 wherein the polymer is an NVF/vinylamine copolymer with diallyldimethylammonium chloride or with a cationic acrylate comonomer.